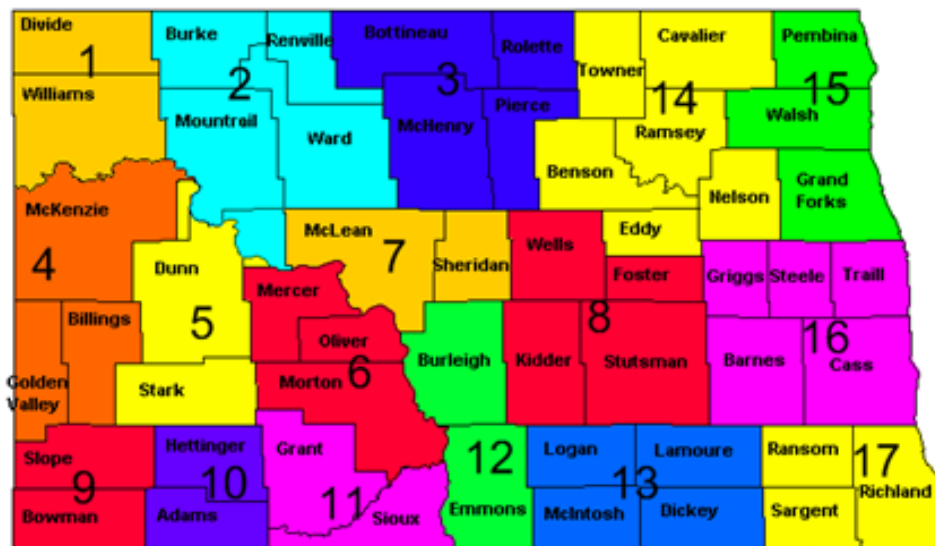


What is the Fire Danger Index?

The North Dakota Fire Danger Index provides an indication of rural fire potential for grasslands, including its ability to spread. The index contains five ratings: Low, Medium, High, Very High, and Extreme. Should a fire ignite, it is more likely that it would grow or spread during higher index days.

North Dakota is broken up into 17 different fire danger groupings. These divisions are based on predominant vegetation and soil types, and average soil moisture and topography. The Grassland Fire Danger Index is issued by the National Weather Service daily around 5 AM CDT (4 AM MDT) with a specific rating for each of the 17 fire danger groupings. It can be found online at www.weather.gov/bis.



North Dakota Fire Danger Index County Groups

What Does the Fire Danger Index Mean to Me?

Your local fire service recommends certain guidelines based on the fire danger index rating. The North Dakota Fire Danger Guide at <http://www.nd.gov/des/planning/fire-danger-awareness/> describes recommendations. For specific information on burn bans, you need to contact your local fire officials, sheriff's office, or the North Dakota Department of Emergency Services or the State Fire Marshall.

<u>Index</u>	<u>Fire Danger Description</u>
Low	Weather and fuel indicators show the probability of erratic fire behavior is low.
Medium	Weather and fuel indicators indicate some potential for erratic fire behavior with moderate rates of spread should a fire ignite.
High	Fires which ignite may be active. Expect moderate and occasional high rates of spread.
Very High	Fires spread rapidly and show erratic behavior. Dangerous burning conditions exist.
Extreme	Potential for large fires exists. Fires spread rapidly. Extreme fire behavior is probable. Critical burning conditions exist.

How is the Grassland Fire Danger Index Calculated?

Scientifically! The National Weather Service calculates the fire danger index every day during the fire season (generally April through November) using both the latest weather forecast information, as well as data on vegetative greenness (or curing) for each of the 17 fire danger groupings. The index is based on the science of fire, and not on whether or not a burn ban is in effect for a given area. As a result, the fire danger index can and does change from day to day!

What goes into the fire danger index calculation?

1) Vegetative greenness, provided by satellite interpretation in conjunction with fire managers from state and federal agencies that monitor the dryness of fuels (grasses). The fire danger index is based on the potential for non-agricultural grasslands to carry fire. Thus, it is important to know not only how dry the resident grasses are, but how much dead grass is left underneath the live vegetation. Even a relatively green pasture can support a dangerous wildfire if there is sufficient dead grass underneath the new growth. If the total greenness is high because there is little dead grass and grasses have not cured, then the fire danger may only be in the low or medium category, no matter how hot and windy a certain day is.

2) Weather conditions. Wind, heat, and relative humidity are the most important weather factors in the calculations, along with amount of cloud cover and precipitation predicted during the afternoon. Windy, hot, and low humidity days are the most critical because they allow dry grasses to ignite easily and allow fires to spread rapidly. The National Weather Service local forecast office produces graphical forecasts for 7 days using a wide variety of information ranging from satellite and radar data to weather balloon observations, computer weather prediction models, and local experience.

A scientific calculation is then run to derive the fire danger from the afternoon weather and the vegetative greenness values.